dunetpc - Task #21465

tag dunetpc v07_12_00

11/30/2018 05:15 AM - Christoph Alt

Status:	Closed	**Start date:**	11/30/2018
Priority:	Normal	**Due date:**	
Assignee:	David Adams	**% Done:**	0%
Category:		**Estimated time:**	0.00 hour
Target version:			

Description

David,

Please tag dunetpc v07_12_00.

Christoph

P.S.: I deactivated test_AdcRoiViewer since it was failing:
https://cdcvs.fnal.gov/redmine/projects/dunetpc/repository/revisions/develop/entry/dune/DataPrep/Tool/test/CMakeLists.txt

History

#1 - 11/30/2018 06:28 AM - Christoph Alt

Also, the c2 build fails because of an error in AdcRoiViewer_tool.cc:
http://dbweb5.fnal.gov:8080/LarCI/app/ns:dune/storage/docs/2018/11/30/buildDUNE__4aOnrPS.log

#2 - 11/30/2018 08:11 AM - David Adams

- Status changed from New to Work in progress

I have tried to resolve the problems with AdcRoiViewer and am running test jobs with c2 and gcc.

#3 - 11/30/2018 08:45 AM - David Adams

For gcc the build and test suceeded but c2 has these errors:

```
/nashome/d/dladams/dev/dudev02/workdir/srcs/dunetpc/dune/Protodune/singlephase/ProtoDUNEUnstableHVFilter_modul
e.cc:154:62: error: comparison of constant 9999999999 with expression of type 'UInt_t' (aka 'unsigned int') is
 always false [-Werror,-Wtautological-constant-out-of-range-compare]
            if (fTimeRangeHigh < 1000000000|| fTimeRangeHigh > 9999999999 || fTimeRangeLow < 1000000000|| fTim
eRangeLow > 9999999999 ) {
                                               ~~~~~~~~~~~~~~ ^ ~~~~~~~~~~
/nashome/d/dladams/dev/dudev02/workdir/srcs/dunetpc/dune/Protodune/singlephase/ProtoDUNEUnstableHVFilter_modul
e.cc:154:121: error: comparison of constant 9999999999 with expression of type 'UInt_t' (aka 'unsigned int') i
s always false [-Werror,-Wtautological-constant-out-of-range-compare]
            if (fTimeRangeHigh < 1000000000|| fTimeRangeHigh > 9999999999 || fTimeRangeLow < 1000000000|| fTim
eRangeLow > 9999999999 ) {
                                                                                                            ~~~~
~~~~~~~~~ ^ ~~~~~~~~~~
/nashome/d/dladams/dev/dudev02/workdir/srcs/dunetpc/dune/Protodune/singlephase/ProtoDUNEUnstableHVFilter_modul
e.cc:62:24: error: private field 'PrevRDTSTimeSec' is not used [-Werror,-Wunused-private-field]
                double PrevRDTSTimeSec;
                       ^
/nashome/d/dladams/dev/dudev02/workdir/srcs/dunetpc/dune/Protodune/singlephase/ProtoDUNEUnstableHVFilter_modul
e.cc:63:24: error: private field 'RDTSTimeNano' is not used [-Werror,-Wunused-private-field]
                double RDTSTimeNano;
                       ^
4 errors generated.
```

I can

- 1. Fix it
- 2. Comment out the module
- 3. Tag and build gcc only
- 4. Wait

Any thoughts on how I should proceed?

#4 - 11/30/2018 08:51 AM - David Adams

I have added the author of the module. Owen, this is blocking our release--please let us know how to proceed.

One problem is you compare with 9999999999 and the largest value is -1 --> 4294967295.

da

#5 - 11/30/2018 08:56 AM - David Adams

I have removed the comparisons with 9999999999 and removed the declarations of unused members. If this is acceptable (and it compiles and tests), there is no need for anyone else to take action, i.e. I follow my option 1. Speak quickly if you want something else.

#6 - 11/30/2018 08:59 AM - Christoph Alt

This is fine for me!

#7 - 11/30/2018 09:10 AM - David Adams

Owen also ok'd the change. I have committed changes to dunetpc develop and am rerunning the test builds.

#8 - 11/30/2018 09:45 AM - David Adams

Tests are failing with crash for c2. The problem is fetching the geometry service.

#9 - 11/30/2018 10:29 AM - David Adams

At the (almosst) lowest level, I think the problem is local is null in a call to void geo::LocalTransformation<Matrix>::LocalToWorldVect(local, world).

Moving up the chain, there is a call from geo::GeoObjectSorterProtoDUNESP::SortAuxDets. The problem has to do with CRTs. I see Brian's name on the code and I have added him to this ticket.

I don't think this is a problem for me to resolve. It appears we cannot use the geometry service with c2. Should we wait for Brian of go with gcc only?

Note problem can be seen with

```
$MRB_BUILDDIR/dunetpc/bin/test_GeometryProtoDune
```

for c2 only.

da

#10 - 11/30/2018 10:45 AM - David Adams

Brian says this is not his code. It looks like Andrew Olivier last worked on the CRT sorting. I add him to this ticket.

#11 - 11/30/2018 11:41 AM - Leigh Whitehead

There was a problem with c2 and geometry back with the CVN before. We added an explicit include into the CMakeList to fix it. I wonder if the same will work here? I include a link to the commit diff from Christoph:

https://cdcvs.fnal.gov/redmine/projects/dunetpc/repository/revisions/c2b40307f3c1193e8c26a6adecb654cda9950b93/diff/dune/CVN/func/CMakeLists.txt

#12 - 11/30/2018 11:43 AM - David Adams

I just rebuilt under c2 hoping problem might go away. It did not. I also confirmed I get a crash if I instantiate the service from lar rather than with the test code.

A fix just went in so that the tail correction is not applied in MC where it was causing a crash. I will include that.

I have added Tingjun and George to this ticket.

#13 - 11/30/2018 11:54 AM - David Adams

Leigh: larcorealg_Geometry is already in the list of LIB_LIBRARIES for GeoObjectSorterProtoDUNESP.

All: Should we give up on c2 for this release or continue to delay?

da

#14 - 11/30/2018 12:29 PM - Andrew Olivier

The feature I wanted GeoObjectSorterProtoDUNESP to add isn't working out, so I'm currently planning to remove it by Monday. Would it help if I remove it now? I would remove that file entirely and take it out of ProtoDUNEChannelMapAlg.cxx to use the old default channel sorting instead.

If I remove GeoObjectSorterProtoDUNESP today, we wouldn't be able to get CRT raw data compatible with the Geometry service in this version of dunetpc, but I don't think that is likely to affect anyone yet. I'm planning to move the feature I was trying to implement to the ProtoDUNE-SP CRTRawDecoder next week.

#15 - 11/30/2018 12:32 PM - David Adams

If it is not working anyway, removal is fine for me.

#16 - 11/30/2018 01:13 PM - Andrew Olivier

OK, I wrote feature/aolivier_remove_crt_geo_sorting to remove the feature that I think is causing this problem and put back the "normal" channel sorting algorithm. It builds on the dunegpvms which I think means gcc by default, but I don't know the procedure for testing something like this that could affect how the geometry is loaded. Please let me know what I need to do to test this change and let me know if you have any problems using it. I'm in a meeting on a weak wifi connection, so it might be about an hour before I can run any serious test jobs.

#17 - 11/30/2018 01:22 PM - David Adams

Please put the change in develop. I will test as soon as this is done. I don't know how you set up, but replacing e17 with c2 switches from gcc to clang. Thanks.

#18 - 11/30/2018 01:34 PM - Tingjun Yang

My understanding is that develop is fixed.

#19 - 11/30/2018 01:39 PM - David Adams

You can test with $MRB_BUILDDIR/dunetpc/bin/test_GeometryProtoDune

#20 - 11/30/2018 02:19 PM - Andrew Olivier

OK, develop of dunetpc builds for me on dunebuild01 with qualifiers debug:e17 and debug:c2, and the CI test looks OK. At the end, I got back:

test_GeometryDune: ----------
test_GeometryDune: Done.
Tests concluded.
ArtServiceHelper::close: Closing art services.

For both of them, and no error messages stood out to me. This code is already committed to develop. Please let me know if you need me to do anything else.

#21 - 11/30/2018 03:52 PM - David Adams

The latest dunetpc builds and tests successfully with both compilers. I have tagged and started the Jenkins builds.

#22 - 11/30/2018 05:46 PM - David Adams

Th e17 builds are installed. Those for c2 will be installed after the mac builds complete.

#23 - 12/02/2018 12:36 PM - David Adams

- Status changed from Work in progress to Closed

This was completed yesterday.